

ABSTRACT OF THE DISCLOSURE

An antenna diversity system for receiving frequency-modulated (FM) radio signals with the phase-controlled summation of antenna signals for motor vehicles equipped with a multi-antenna system having at least two antenna output signals, and a receiver with an input for each of a first and a second received signal path, wherein the second of the two received signal paths contains a phase-shifter controlled by a phase-controller. The received signal has the same phase on the output of the phase-shifter as in the first signal path. The two received signals are added up in a phase-coincident manner in a summation circuit, and the added-up signal is supplied to the FM frequency modulator. The multi-antenna system contains a controllable logic circuit, so that a received signal that is different in terms of diversity, is supplied in each case to at least one of the two inputs of the receiver in different switching positions assumed by the selector switches, and the added-up signal is supplied to an interference detector for extremely rapid detection of an added-up signal disturbed by a frequency swing. Thus, in the presence of a reception interference, the interference-detecting signal of the interference detector actuates the logic switching device to another switching position, and wherein the phase-controller serves as a low-pass filter for limiting the speed of the phase control.